IN THE CLAIMS

Please substitute the following amended claims for corresponding claims previously presented. A copy of the amended claims showing current revisions is attached.

1. (Amended) A liquid crystal display device, comprising:

a pair of substrates opposing each other;

a liquid crystal layer interposed between the pair of substrates;

a plurality of switching elements arranged in a matrix pattern on one of the pair of substrates;

gate signal lines for supplying gate signals for driving the switching elements;

source signal lines for supplying display signals to the switching elements;

an interlayer insulating film provided on one of the pair of substrates over the gate signal lines and the source signal lines; and

pixel electrodes provided over the gate signal lines and the source signal lines via the interlayer insulating film, wherein:

the interlayer insulating film on one of the pair of substrates extends to a surrounding region of a display pixel area; and

an electrode pattern for adsorbing an ionic impurity is provided on the interlayer insulating film in the surrounding region so as to surround the display pixel area on all sides.

8. (Amended) A liquid crystal display device, comprising:

a pair of substrates opposing each other;

a liquid crystal layer interposed between the pair of substrates;

a plurality of switching elements arranged in a matrix pattern on one of the pair of substrates;

gate signal lines for supplying gate signals for driving the switching elements;

source signal lines for supplying display signals to the switching elements;

an interlayer insulating film provided on one of the pair of substrates over the gate signal lines and the source signal lines;

pixel electrodes provided over the gate signal lines and the source signal lines via the interlayer insulating film, wherein:

the interlayer insulating film on one of the pair of substrates extends to a surrounding region of a display pixel area;

an electrode pattern for adsorbing an ionic impurity is provided on the interlayer insulating film in the surrounding region; and

the electrode pattern is divided into a plurality of segments; and an electric signal is individually input to each of the segments.

9. (Amended) A liquid crystal display device, comprising:

a pair of substrates opposing each other;

a liquid crystal layer interposed between the pair of substrates;

a plurality of switching elements arranged in a matrix pattern on one of the pair of substrates;

gate signal lines for supplying gate signals for driving the switching elements;

source signal lines for supplying display signals to the switching elements;

an interlayer insulating film provided on one of the pair of substrates over the gate signal lines and the source signal lines;

pixel electrodes provided over the gate signal lines and the source signal lines via the interlayer insulating film, wherein:

the interlayer insulating film on one of the pair of substrates extends to a surrounding region of a display pixel area;

an electrode pattern for adsorbing an ionic impurity is provided on the interlayer insulating film in the surrounding region;

the display pixel area has a generally rectangular shape;

the pair of substrates are arranged so that a rubbing direction of one of the substrates which is represented by a first arrow crosses a rubbing direction of the other one of the substrates which is represented by a second arrow, the first and second arrows each extending from its tail to its head; and

the electrode pattern extends only along three sides of the display pixel area, including a first side interposed between the head of the first arrow and the head of the second arrow, and second and third sides which respectively extend from opposite ends of the first side.

10. (Amended) A liquid crystal display device, comprising:

a pair of substrates opposing each other;

a liquid crystal layer interposed between the pair of substrates;

a plurality of switching elements arranged in a matrix pattern on one of the pair of substrates;

gate signal lines for supplying gate signals for driving the switching elements;

source signal lines for supplying display signals to the switching elements;

an interlayer insulating film provided on one of the pair of substrates over the gate signal lines and the source signal lines;

pixel electrodes provided over the gate signal lines and the source signal lines via the interlayer insulating film, wherein:

the interlayer insulating film on one of the pair of substrates extends to a surrounding region of a display pixel area;

an electrode pattern for adsorbing an ionic impurity is provided on the interlayer insulating film in the surrounding region;

the pair of substrates are arranged so that a rubbing direction of one of the substrates which is represented by a first arrow crosses a rubbing direction of the other one of the substrates which is represented by a second arrow, the first and second arrows each extending from its tail to its head; and

the electrode pattern extends only along one side of the display pixel area interposed between the head of the first arrow and the head of the second arrow.

12. (Amended) A liquid crystal display device, comprising:

a pair of substrates opposing each other;

a liquid crystal layer interposed between the pair of substrates;

a plurality of switching elements arranged in a matrix pattern on one of the pair of substrates;

gate signal lines for supplying gate signals for driving the switching elements;

source signal lines for supplying display signals to the switching elements;

an interlayer insulating film provided on one of the pair of substrates over the gate signal lines and the source signal lines;

pixel electrodes provided over the gate signal lines and the source signal lines via the interlayer insulating film, wherein:

the interlayer insulating film on one of the pair of substrates extends to a surrounding region of a display pixel area;

an electrode pattern for adsorbing an ionic impurity is provided on the interlayer insulating film in the surrounding region;

the liquid crystal display device includes a generally rectangular display pixel area;

a rubbing direction of at least one of the substrates is represented by an arrow pointing to a corner of the generally rectangular display pixel area; and

the electrode pattern extends along two sides of the generally rectangular display pixel area which are connected together by the corner that is pointed to by the arrow.

13. (Amended) A liquid crystal display device, comprising:

a pair of substrates opposing each other;

a liquid crystal layer interposed between the pair of substrates;

a plurality of switching elements arranged in a matrix pattern on one of the pair of substrates;

gate signal lines for supplying gate signals for driving the switching elements;

source signal lines for supplying display signals to the switching elements;

an interlayer insulating film provided on one of the pair of substrates over the gate signal lines and the source signal lines;

pixel electrodes provided over the gate signal lines and the source signal lines via the interlayer insulating film, wherein:

the interlayer insulating film on one of the pair of substrates extends to a surrounding region of a display pixel area;

an electrode pattern for adsorbing an ionic impurity is provided on the interlayer insulating film in the surrounding region;

the liquid crystal display device includes a generally rectangular display pixel area;

a rubbing direction of one of the substrates is represented by a first arrow pointing to a first corner of the generally rectangular display pixel area, and a rubbing direction of the other one of the substrates is represented by a second arrow pointing to a second corner of the generally rectangular display pixel area; and

the electrode pattern extends along a first pair of sides which are connected together by the first corner and along a second pair of sides which are connected together by the second corner , wherein the first pair of sides and the second pair of sides may share one side with each other.

Please add the following new claim:

15. (New) A liquid crystal display device, comprising:

a pair of substrates;

a liquid crystal layer between the pair of substrates;

a plurality of switching elements arranged on one of the pair of substrates;

pixel electrodes provided in a display pixel area of the display device;

an insulating film on one of the pair of substrates and at least partially covering address lines, the insulating film extending to a surrounding region of the display pixel area; and

an electrode pattern for adsorbing an ionic impurity provided over the interlayer insulating film in the surrounding region so as to surround the display pixel area on all sides thereof.

REMARKS

This is in response to the Office Action dated November 7, 2001 and the Interview Summary dated February 6, 2002. New claim 15 has been added. Claims 1-15 are